

aB

SEQUENCE LISTING

<110> Arazi, Tzahi
Amit, Gal-On
Shiboleth, Yoel Moshe

<120> VECTORS FOR EXPRESSING HETEROLOGOUS PEPTIDES AT THE AMINO-TERMINUS OF POTYVI
RUS COAT PROTEIN, METHODS FOR USE THEREOF, PLANTS INFECTED WITH SAME AND METHODS OF
VACCINATION USING SAME

<130> 1686/4

<140> 09/963,761

<141> 2001-09-27

<150> US 60/253,136

<151> 2000-11-28

<160> 33

<170> PatentIn version 3.1

<210> 1

<211> 837

<212> DNA

<213> unidentified

<400> 1

```
tcaggcactc agccaactgt ggcagatgct ggagctacaa agaaagataa agaagatgac      60
aaagggaaaa acaaggacgt tacaggctcc ggctcagggtg agaaaacagt agcagctgtc      120
acgaaggaca aggatgtgaa tgctggttct catgggaaaa ttgtgccgcg tctttcgaag      180
atcacaaaga aaatgtcatt gccacgcgtg aaaggaaatg tgatactcga tattgatcat      240
ttgctggaat ataaaccgga tcaaattgag ttatataaca cacgagcgtc tcatcagcag      300
ttcgcctctt gggttcaacca ggtaagacg gaatatgatt tgaacgagca acagatggga      360
gttgtaatga atggtttcat ggtttggtgc attgagaatg gcacttcacc cgacattaat      420
ggagtgtggg ttatgatgga cggaaatgag caagttgagt atcccttgaa accaatagtt      480
gaaaatgcaa agccaacgct gcggcaaata atgcatcatt ttccagatgc agcggaggca      540
tatatagaga tgagaaatgc agaggcacca tacatgccga ggtatggttt gcttcgaaac      600
ctacgggata ggagtttagc acgatatgct tttgatttct atgaagtcaa ttctaaaact      660
cctgaaagag cccgcgaagc tgttgcgagc atgaaagcag cagctcttag caatgtttct      720
tcaaggttgt ttggccttga tggaaatggt gccaccacta gcgaagacac tgaacggcac      780
actgcacgtg atgttaatag aaacatgcac accttactag gtgtgaatac aatgcag      837
```

<210> 2

<211> 279

<212> PRT

<213> unidentified

<400> 2

```
Ser Gly Thr Gln Pro Thr Val Ala Asp Ala Gly Ala Thr Lys Lys Asp
1          5          10          15
```

```
Lys Glu Asp Asp Lys Gly Lys Asn Lys Asp Val Thr Gly Ser Gly Ser
```

20	25	30
Gly Glu Lys Thr Val Ala Ala Val Thr Lys Asp Lys Asp Val Asn Ala		
35	40	45
Gly Ser His Gly Lys Ile Val Pro Arg Leu Ser Lys Ile Thr Lys Lys		
50	55	60
Met Ser Leu Pro Arg Val Lys Gly Asn Val Ile Leu Asp Ile Asp His		
65	70	75
Leu Leu Glu Tyr Lys Pro Asp Gln Ile Glu Leu Tyr Asn Thr Arg Ala		
85	90	95
Ser His Gln Gln Phe Ala Ser Trp Phe Asn Gln Val Lys Thr Glu Tyr		
100	105	110
Asp Leu Asn Glu Gln Gln Met Gly Val Val Met Asn Gly Phe Met Val		
115	120	125
Trp Cys Ile Glu Asn Gly Thr Ser Pro Asp Ile Asn Gly Val Trp Val		
130	135	140
Met Met Asp Gly Asn Glu Gln Val Glu Tyr Pro Leu Lys Pro Ile Val		
145	150	155
Glu Asn Ala Lys Pro Thr Leu Arg Gln Ile Met His His Phe Ser Asp		
165	170	175
Ala Ala Glu Ala Tyr Ile Glu Met Arg Asn Ala Glu Ala Pro Tyr Met		
180	185	190
Pro Arg Tyr Gly Leu Leu Arg Asn Leu Arg Asp Arg Ser Leu Ala Arg		
195	200	205
Tyr Ala Phe Asp Phe Tyr Glu Val Asn Ser Lys Thr Pro Glu Arg Ala		
210	215	220
Arg Glu Ala Val Ala Gln Met Lys Ala Ala Ala Leu Ser Asn Val Ser		
225	230	235
Ser Arg Leu Phe Gly Leu Asp Gly Asn Val Ala Thr Thr Ser Glu Asp		
245	250	255
Thr Glu Arg His Thr Ala Arg Asp Val Asn Arg Asn Met His Thr Leu		
260	265	270
Leu Gly Val Asn Thr Met Gln		
275		

<210> 3
 <211> 20

<212> DNA
 <213> unidentified

<400> 3
 catttccttt cacgcgtggc 20

<210> 4
 <211> 21
 <212> DNA
 <213> unidentified

<400> 4
 tcacaccatc accatcacca t 21

<210> 5
 <211> 7
 <212> PRT
 <213> unidentified

<400> 5
 Ser His His His His His
 1 5

<210> 6
 <211> 53
 <212> DNA
 <213> unidentified

<400> 6
 cagctgcagt cacaccatca ccatcaccat tcaggcactc agccaactgt ggc 53

<210> 7
 <211> 55
 <212> DNA
 <213> unidentified

<400> 7
 cagctgcagt cacaccatca ccatcaccat gatactggag ctacaaagaa agaag 55

<210> 8
 <211> 45
 <212> DNA
 <213> unidentified

<400> 8
 tcagcatcag agcagaagct catttcagag gaggatctcg gatcc 45

<210> 9
 <211> 15
 <212> PRT
 <213> unidentified

<400> 9
 Ser Ala Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Ser
 1 5 10 15

<210> 10
 <211> 77
 <212> DNA
 <213> unidentified

<400> 10
 cagctgcagt cagcatcaga gcagaagctc atttcagagg aggatctcgg atcctcaggc 60
 actcagccaa ctgtggc 77

<210> 11
 <211> 82
 <212> DNA
 <213> unidentified

<400> 11
 cagctgcagt cagcatcaga gcagaagctc atttcagagg aggatctcgg atccgatact 60
 ggagctacaa agaaagataa ag 82

<210> 12
 <211> 81
 <212> DNA
 <213> unidentified

<400> 12
 cagctgcagt cagcatcaga gcagaagctc atttcagagg aggatctcgg atccaagaaa 60
 gataaagaag atgacaaagg g 81

<210> 13
 <211> 31
 <212> DNA
 <213> unidentified

<400> 13
 cgcgatccg atgacaaagg gaaaaacaag g 31

<210> 14
 <211> 30
 <212> DNA
 <213> unidentified

<400> 14
 ctcgatcca acaaggatgt tacaggctcc 30

<210> 15
 <211> 27
 <212> DNA
 <213> unidentified

<400> 15
 cgcgatccg gctccggctc aagtgag 27

<210> 16
 <211> 30
 <212> DNA
 <213> unidentified

<400> 16
 cgcgatccg agaaaacagt ggcagctgtc 30

<210> 17
 <211> 28
 <212> DNA
 <213> unidentified

<400> 17
cgcgatccg ctgtcacgaa ggacaagg 28

<210> 18
<211> 33
<212> DNA
<213> unidentified

<400> 18
cgcgatcca aggatgtaaa tgctggttct cat 33

<210> 19
<211> 30
<212> DNA
<213> unidentified

<400> 19
ctcggatccg gttctcatgg gaaaattgtg 30

<210> 20
<211> 51
<212> DNA
<213> unidentified

<400> 20
agtgtgagag gagatcttca agtgcttgca cgaaaagcag caagaccact t 51

<210> 21
<211> 17
<212> PRT
<213> unidentified

<400> 21
Ser Val Arg Gly Asp Leu Gln Val Leu Ala Arg Lys Ala Ala Arg Pro
1 5 10 15

Leu

<210> 22
<211> 87
<212> DNA
<213> unidentified

<400> 22
cagctgcagt ccgtgagagg agatcttcaa gtgcttgac gaaaagcagc aagaccactt 60
aagaaagata aagaagatga caaaggg 87

<210> 23
<211> 83
<212> DNA
<213> unidentified

<400> 23
cagctgcaga gtgtgagagg agatcttcaa gtgcttgac gaaaagcagc aagaccactt 60
tcaggcactc agccaactgt ggc 83

<210> 24
 <211> 84
 <212> DNA
 <213> unidentified

 <400> 24
 cgcggatccg tgagaggaga tcttcaagtg cttgcacgaa aagcagcaag accacttaag 60
 aaagataaag aagatgacaa aggg 84

 <210> 25
 <211> 33
 <212> DNA
 <213> unidentified

 <400> 25
 cagctgcagt ccgagaaaac agtggcagct gtc 33

 <210> 26
 <211> 34
 <212> DNA
 <213> unidentified

 <400> 26
 cagctgcagt ccgacactgg agccacaaaag aaag 34

 <210> 27
 <211> 37
 <212> DNA
 <213> unidentified

 <400> 27
 cagctgcagt ccaagaaaga caaagaagat gacaaag 37

 <210> 28
 <211> 24
 <212> DNA
 <213> unidentified

 <400> 28
 tccattatta atttcgaaaa gttg 24

 <210> 29
 <211> 8
 <212> PRT
 <213> unidentified

 <400> 29
 Ser Ile Ile Asn Phe Glu Lys Leu
 1 5

 <210> 30
 <211> 56
 <212> DNA
 <213> unidentified

 <400> 30
 cagctgcagt ccattattaa ttctgaaaag ttgtcaggca ctcagccaac tgtggc 56

 <210> 31
 <211> 33

<212> DNA
<213> unidentified

<400> 31
cagctgcagt ccgagaaaac agtggcagct gtc 33

<210> 32
<211> 22
<212> DNA
<213> unidentified

<400> 32
agctccatac atagctgaga ca 22

<210> 33
<211> 20
<212> DNA
<213> unidentified

<400> 33
tggttgaacc aagaggcgaa 20